

**Notice of Allowability**

Application No.

10/776,124 ✓

Applicant(s)

YAMAZAKI, YUICHIRO

Examiner

Natalia Figueroa

Art Unit

2651

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment (08 July 2005).
2. ☒ The allowed claim(s) is/are 1 and 3-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph P. Fox (Reg. No. 41,760) on November 7, 2005.

The application has been amended as follows:

In claim 3, delete "claim 2", replace with - claim 1 -.

In claim 4, delete "claim 2", replace with - claim 1 -.

In claim 5, delete "claim 2", replace with - claim 1 -.

In claim 6, delete "claim 2", replace with - claim 1 -.

In claim 19, delete "A program operable to cause a computer to execute: the computer being incorporated in a magnetic disk apparatus including a read gate generation unit which generates a read gate signal having a predefined read start time and read end time that are set using a sector pulse as a reference, and a data demodulation unit which reproduces read data from a medium readout signal by executing a read based on the read gate signal," replace with

- A program embodied in a computer readable medium to cause a computer, the computer being incorporated in a magnetic disk apparatus including a read gate generation unit which generates a read gate signal having a predefined read start time and read end time that are set using a sector pulse as a reference, and a data demodulation unit which reproduces read data

Art Unit: 2651

from a medium readout signal by executing a read based on the read gate signal, to execute the steps of: -.

*Allowable Subject Matter*

2. Claims 1 and 3-19 are allowed.

3. The following is an examiner's statement of reasons for allowance:

RE claim 1, the prior art of record, and in particular Chung (USPN 6,229,660), fails to teach or suggest an apparatus wherein the read gate optimization unit includes a timing adjustment unit which varies the read start time and the read end time of the read gate signal for output to the data demodulation unit, for each of plural times of executions of test read; an error detection unit which detects errors of the read data demodulated by the data demodulation unit; for each execution of test read, based on the read gate signal output from the timing adjustment unit; and an optimum time determination unit which determines as optimum times the read start time and the read end time of the read gate signal at which the errors are minimized of a plurality of errors detected by the error detection unit, the optimum time determination unit setting the determined optimum times in the read gate generation unit.

RE claim 13, the prior art of record, and in particular Chung (USPN 6,229,660), fails to teach or suggest a method comprising a timing adjustment step varying the read start time and the read end time of the for output to the data demodulation unit, for each of plural times of read gate signal executions of test read; an error detection step detecting errors of the read data demodulated in the data demodulation unit, for each execution of test read, based on the read gate signal output in the timing adjustment step; and an optimum time determination step determining as optimum times the read start time and the read end time of the read gate signal at

which the errors are minimized of a plurality of errors detected in the error detection step, and setting the determined optimum times in the read gate generation unit.

RE claim 19, the prior art of record, and in particular Chung (USPN 6,229,660), fails to teach or suggest a timing adjustment step varying the read start time and the read end time of the read gate signal for output to the data demodulation unit, for each of plural times of executions of test read; an error detection step detecting errors of the read data demodulated in the data demodulation unit, for each execution of test read, based on the read gate signal output in the timing adjustment step; and an optimum time determination step determining as optimum times the read start time and the read end time of the read gate signal at which the errors are minimized of a plurality of errors detected in the error detection step, and setting the determined optimum times in the read gate generation unit.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Figueroa whose telephone number is (571) 272-7554. The examiner can normally be reached on Monday - Thursday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2651

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
NFM

  
DAVID HUDSPETH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600